

Claims

1. A method for establishing a data transfer connection from a first device utilizing SIP protocol to a second device over a telecommunication network comprising at least two sub-networks from which at least one is unable to utilize SIP protocol,
5 in which method a tunnel utilizing TCP protocol is established by a client application residing in a first sub-network, whereto the first device has established a connection utilizing SIP protocol;
in which method said tunnel established over sub-networks not supporting SIP protocol is terminated to a server application in a second sub-network supporting SIP protocol, which server application has a permanent IP address or DNS name, whereto is connected said second device, which utilizes SIP protocol.
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- 15 2. The method according to claim 1 wherein said tunnel is created by a SPWM agent residing in the first sub-network to a SPWM contact point residing in the second sub-network.
- 20 3. The method according to claim 2 wherein said SPWM agent receives and transmits messages utilizing SIP, UDP or TCP protocols from or to a SIP application residing in said first terminal.
- 25 4. The method according to claim 3 where said SIP-application is a VoIP application.
5. The method according to claim 4 wherein said SIP-application is a PoC application.
- 30 6. The method according to claim 2 wherein said SPWM contact point receives messages utilizing TCP protocol from said agent via said tunnel and utilizes SIP, UDP or TCP protocols in communication with the second terminal.
7. The method according to claims 3 or 6 wherein said UDP protocol comprises RTP and RTCP protocols.
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8. A network arrangement for establishing a data transfer connection from a first device utilizing SIP application to a second device over a telecommunication

network comprising at least two sub-networks from which at least one is unable to utilize SIP protocol,

5 in which network arrangement a tunnel utilizing TCP protocol is established from a client application residing in a first sub-network serving the first device; where said tunnel over sub-networks not supporting SIP protocol is terminated to a server application in a second SIP supporting sub-network, which server application has a permanent IP address or DNS hostname, whereto is connected said second terminal, which utilizes SIP protocol.

10 9. The network arrangement according to claim 8 wherein said tunnel is created by a SPWM agent residing in the first sub-network to a SPWM contact point residing in the second sub-network.

15 10. The network arrangement according to claim 9 wherein said SPWM agent is a software application embedded in a router of the first sub-network.

11. The network arrangement according to claim 9 wherein said SPWM agent is a software application embedded in a server residing in the first sub-network.

20 12. The network arrangement according to claim 9 wherein said SPWM agent is a software application saved in the first device.

13. The network arrangement according to claim 9 wherein said SPWM agent is embedded in said SIP application of the first device.

25 14. The network arrangement according to claim 13 where said SIP-application is a VoIP application.

30 15. The network arrangement according to claim 14 wherein said SIP application is a PoC application.

16. The network arrangement according to claim 9 wherein said SPWM agent is arranged to receive and transmit messages utilizing SIP, UDP and TCP protocols from or to the SIP application residing in the first device.

35 17. The network arrangement according to claim 16 wherein said UDP protocol comprises RTP and RTCP protocols.

18. The network arrangement according to claim 9 wherein said SPWM contact point is a software application embedded in a router of the second sub-network.

5 19. The network arrangement according to claim 9 wherein said SPWM contact point is a software application embedded in a server residing in the second sub-network.

10 20. The network arrangement according to claim 9 wherein said SPWM contact point is arranged to receive messages utilizing TCP protocol from said SPWM agent via said tunnel and to utilize SIP, UDP or TCP protocols in communication with the second device.

15 21. The network arrangement according to claim 20 wherein said UDP protocol comprises RTP and RTCP protocols.

20 22. The network arrangement according to claim 9 wherein the first sub-network is one of the following: a Home LAN, an ISP Intranet, a corporate Intranet, the Internet and the second sub-network is a combination of an operator Intranet and a packet switched cellular network.

23. A computer program product comprising:
A computer usable medium having computer readable code means embodied therein for causing a computer to create a SPWM agent in a user device, the computer readable code means in the computer program product further
25 comprising:

- computer readable code means for causing the SPWM agent to send and receive messages utilizing SIP, UDP or TCP protocols to and from a SIP application residing in the user device
- 30 – computer readable code means for causing the SPWM agent to create a TCP connection from the SPWM agent to a SPWM connection point
- computer readable code means for causing the SPWM agent to use user specific ciphering in data transmission with the SPWM connection point.

35 24. The computer program product according to claim 23 wherein said UDP protocol comprises RTP and RTCP protocols.

25. A computer program product comprising:

a computer usable medium having computer readable code means embodied therein for causing a computer to create a SPWM contact point in the computer residing in a operator Intranet, the computer readable code means in the computer

5 program product further comprising:

- computer readable code means for causing the SPWM contact point to receive messages utilizing TCP protocol from a SPWM agent

- computer readable code means for causing the SPWM contact point to use user specific ciphering in data transmission with the SPWM agent

10 – computer readable code means for causing the SPWM contact point to use SIP protocol in communication with a SIP server residing in the operator Intranet

- computer readable code means for causing the SPWM contact point to utilize UDP or TCP protocols with a cellular terminal residing in an operator's

15 cellular network.

26. The computer program product according to claim 25 wherein said UDP protocol comprises RTP and RTCP protocols.